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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,787	01/11/2005	Kenichi Miyoshi	L9289.04193	2438

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EXAMINER
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MIAH, LITON

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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12/22/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,787	<b>Applicant(s)</b> MIYOSHI ET AL.	
	<b>Examiner</b> LITON MIAH	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. This Action is in response to Applicant's amendment filed on September 29, 2008. Claims 8-17 are still pending in the present application. **This Action is made FINAL.**

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2617

2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 8, 9, 11-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,771,467) in view of Parkvall et al (US 2002/0080719).

**For claim 8**, Sato discloses a radio receiving apparatus comprising:  
a receiver (**fig. 1 box 15**) operable to receive a data packet from a radio transmitting apparatus (**fig. 1 box 12**) (**column 2 lines 58-67**); an error detector (**fig. 1 box 17**) operable to detect an error in the packet (**column 3 lines 10-35**); a transmitter to transmit to the radio transmitting apparatus (**fig. 1 box 12**) a suspend signal requesting to suspend transmission (**column 2 lines 12-19 and column 3 lines 47-57**); and the transmitter transmits the suspend signal to the radio transmitting apparatus (**fig. 1 box 12**) based on the reception quality between the data terminal and the radio receiving apparatus (**column 3 lines 47-57 and column 4 lines 1-15**).

**For claim 8**, Sato specifically does not disclose a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal.

However, **Parkvall et al** from the same or similar fields of endeavor teaches a reception quality measurement section operable to measure a reception quality between the radio transmitting apparatus and the radio receiving apparatus (**paragraph 0014, 0025, 0055 and 0058**); a transmitter operable to transmit a NACK signal to the radio transmitting apparatus (**fig. 10 box 54**) (**paragraphs 0056 and 0057**); wherein the transmitter transmits the NACK signal to the radio transmitting apparatus (**fig. 10 box 54**) if the error is detected by the error detector (**paragraphs 0057 and 0058**); the

Art Unit: 2617

transmitter transmits the feedback signal to the radio transmitting apparatus based on the reception quality between the radio transmitting apparatus and the radio receiving apparatus (**paragraph 0014, 0025, 0049 and 0055-0058**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to measure a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal as taught in Parkvall et al in the communications network of Sato. The reception quality between the radio transmitting apparatus and the radio receiving apparatus and NACK signal as taught by Parkvall et al can be modified/implemented into the communication network of Sato. The motivation for a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal is because it would improve similar devices in the same way.

**For claim 9**, Sato further discloses the transmitter transmits the suspend signal to the radio transmitting apparatus (**fig. 1 box 12**) if the reception quality is equal to or greater than a first threshold (**column 2 lines 9-12 and column 3 lines 40-62**).

**For claim 11**, Sato further discloses the transmitter is further operable to transmit a resume signal requesting to resume the suspended transmission (**column 4 lines 1-19**).

**For claim 12**, Sato further discloses the transmitter is further operable to transmit a give-up signal requesting to stop the suspended transmission (**column 4 lines 3-29**).

**For claim 13**, Sato discloses a radio receiving method comprising the steps of: a step of receiving (**fig. 1 box 15**) a data packet from a radio transmitting apparatus

Art Unit: 2617

(**fig. 1 box 12**) (**column 2 lines 58-67**); a step of detecting (**fig. 1 box 17**) an error in the packet (**column 3 lines 10-35**);

a suspend-signal transmitting step of transmitting to the radio transmitting apparatus (**fig. 1 box 12**) a suspend signal requesting to suspend transmission (**column 2 lines 12-19 and column 3 lines 47-57**);

and the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus (**fig. 1 box 12**) based on the reception quality between the data terminal and the radio receiving apparatus (**column 3 lines 47-57 and column 4 lines 1-15**).

**For claim 13**, Sato specifically does not disclose a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal.

However, **Parkvall et al** from the same or similar fields of endeavor teaches a step of measuring a reception quality between the radio transmitting apparatus and the radio receiving apparatus (**paragraph 0014, 0025, 0055 and 0058**); a NACK transmitting step of transmitting a NACK signal to the radio transmitting apparatus (**fig. 10 box 54**) (**paragraphs 0056 and 0057**) wherein the NACK transmitting step transmits the NACK signal to the radio transmitting apparatus (**fig. 10 box 54**) if the error-detecting step detects an error (**paragraphs 0057 and 0058**); the feedback-signal transmitting step transmits the feedback signal to the radio transmitting apparatus based on the reception quality between the radio transmitting apparatus and the radio receiving apparatus (**paragraph 0014, 0025, 0049 and 0055-0058**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to

Art Unit: 2617

measure a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal as taught in Parkvall et al in the communications network of Sato. The reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal as taught by Parkvall et al can be modified/implemented into the communication network of Sato. The motivation for a reception quality between the radio transmitting apparatus and the radio receiving apparatus and a NACK signal is because it would improve similar devices in the same way.

**For claim 14**, Sato further discloses the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus (**fig. 1 box 12**) if the reception quality is equal to or greater than a first threshold (**column 2 lines 9-12 and column 3 lines 40-62**).

**For claim 16**, Sato further discloses a resume-signal requesting step of transmitting a resume signal requesting to resume the suspended transmission (**column 4 lines 1-19**).

**For claim 17**, Sato further discloses a give-up signal requesting step of transmitting a give-up signal requesting to stop the suspended transmission (**column 4 lines 3-29**).

6. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato and Parkvall et al as applied to claims 8 and 13 above, and further in view of Faerber (US 2003/0031143).

**For claim 10**, Sato further discloses the transmitter transmits the suspend signal to the radio transmitting apparatus (**fig. 1 box 12**) if the reception quality is equal to or greater than a first threshold (**column 2 lines 9-12 and column 3 lines 40-62**).

**For claim 15**, Sato further discloses the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus if the reception quality is equal to or greater than a first threshold (**column 2 lines 9-12 and column 3 lines 40-62**).

**For claims 10 and 15**, Sato and Parkvall et al discloses all the subject matter of the claimed invention with the exception of a second threshold. Faerber from the same or similar fields of endeavor teaches the reception quality is equal to or less than a second threshold (**fig. 4**)(**paragraphs 0039 [lines 3-9] and 0042**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to have a second threshold as taught in Faerber in the communications network of Sato and Parkvall et al. The second threshold as taught by Faerber can be modified/implemented into the communication network of Sato and Parkvall et al. The motivation for the second threshold is because it would improve similar devices in the same way and also it would improve spectral efficiency and high transfer rates.

### ***Response to Arguments***

7. Applicant's arguments, filed on September 29, 2008, with respect to **claims 8 and 13** have been considered but are moot in view of the new ground(s) of rejection necessitated by the new limitations, “...***between the radio transmitting apparatus and the radio receiving apparatus***...”, added to claims 8 and 13. See the above



Art Unit: 2617

rejection of claims 8 and 13 for the relevant citations found in Sato in view of Parkvall et al disclosing the newly added limitations.

Applicant argues that Sato does not disclose **“transmitting a suspend signal to a transmitting apparatus when the reception quality of data received from the transmitting apparatus becomes poor”** (see Remarks page 7).

In response to the preceding arguments examiner respectfully submits that Sylvain teaches **“transmitting a suspend signal to a transmitting apparatus when the reception quality of data received from the transmitting apparatus becomes poor ”** as disclose that the data terminal halts the transmission of the data message. As for limitation **“the reception quality of data received from the transmitting apparatus becomes poor”**, the reception quality becoming poor was not mention in the claim to be considered.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2617

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liton Miah whose telephone number is (571)270-3124. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571)272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/520,787

Page 10

Art Unit: 2617

Liton Miah

/Rafael Pérez-Gutiérrez/

Supervisory Patent Examiner, Art Unit 2617